

21<sup>ST</sup> EDITION

JUNE 2019

# Abhyudaya

*Reliving the Legacy*



COSMO CUISINE



THE ASTRONAUTS' NEED FOR COMFORT FOOD

# This Issue

## Words from the Editor's desk...

Good byes are not forever,  
Goodbyes are not the end,  
They simply mean I'll miss you,  
Until we meet again!

Another year... gone in a jiffy... Our much-loved seniors, the French Toast Mafia are all set to fly high, away from the campus, into the real world and begin their career. It is with a heavy heart we bid adieu to them, we wish them the best of everything!!! FTM you will be missed!!!

### To all the distinguished readers

On behalf of team Abhyuday, I humbly present to you the 21st edition of the magazine, crafted by the 54th batch of M.Sc. Food Technology, the 'Soup-A-Stars'.

The pain of parting is nothing when compared to the joy of meeting again, Mitrotsava gives a peak through the grand get together, our Alumni meet.

Hungry? Thinking about supper? Do you have any idea, as to what astronauts eat, out in the space? Sneak through our cover story – 'The Cosmic Cuisine'.

The food industry buzzes incessantly with innovations & policies, that's what Industry Buzz will focus on.

Synthetic shrimp made from algae has just upped the game of What The Food!

Campus life in CFTRI is one of a kind and it is all credited to the activities that goes on here, an excerpt of which is given in the Kampus Khabar.

The journey is as important as the destination, the Food In'Corporated' article dwells into the journey and making of the popular fruit beverage brand Tropicana Products Inc.,

The Career corner renders handy tips and tricks to spice up your resume for the forthcoming placements.

Going down the timeline our alumni Ms. Anu Kampurath (2004-2006) has a bit of chat with us in the alumni column.

The placement section adds a feather to the cap, and of course, we have the most engaging games section with our twist on emojis.

Captured through the lenses, the magnificence of the campus is portrayed in the photography section.

As always, a lot of hard work has gone into this edition, and we are still learners, hence we look forward to hear from you... Our most beloved readers, please do bestow us with your suggestions and sincere feedback!

Go on... Keep Scrolling!  
Creativity is contagious, pass it on!

REGARDS  
A R. AAKTHI



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# About Abhyuday.....

Emerging as a pioneer in food research in 1950 and continuing to provide an impetus to the food and allied sectors, CFTRI is the backbone of food-based scientific as well as industrial developments in India. The genesis of Abhyuday owes itself to the heritage that was created by the great minds that have been a part of this institution ever since the beginning and emerged from here as successful individuals spreading the glory of this place far and wide.

Abhyuday is a Sanskrit word which means beginning or awakening...

Awakening for re-inventing the vigour and strength by breaking away from the shackles of mediocrity and sombreness...Awakening for being the change and leading the way...

The e-newsletter, it is expected would try and achieve its goal of promoting dissemination of the right and benign knowledge and act like an umbilical cord that would keep us connected to our mother institution.

Industry Buzz will include the past months developments in food industry viz. M&A, new product launches, new market entrants, market reviews, inventions and innovations etc. The Cover-Story will track one most important development of the month in the food industry with a detailed analysis from all the quarters. What The Food! will shed light on the interesting and lesser known facts about food. Kampus Khabar will attempt to track the campus news, developments, conference and seminars, tech-talks by our alumni. Career Corner would be the space where articles related to interpersonal and communication skill development, interview etiquette, CV writing skills etc. would be stressed.

The most exclusive of all the sections would be the Alumn Column which will feature technical articles, literary and artistic works, tweets and blogposts, creative and memorable contributions by our distinguished alumni. Also, we shall run a feature on one prominent CFTRIian in any field in each edition.

Besides, updates regarding upcoming seminars and events, congratulatory messages on birthdays and anniversaries, placements and promotions of alumni will also be featured. Advertisements from industries and entrepreneurs will also be featured for free. With a view to ensure the involvement of the readers and make the experience worthwhile, some games like crosswords, food quiz, jigsaw puzzles, riddles etc. would also be incorporated.

# Mitrotsava 2019

18 May 2019 – a date to be remembered for all the alumni who came forward to celebrate the golden memories of their college days at CFTRI, on the occasion of the alumni meet. It was a great pleasure for the Alumni Association Office bearers, the French Toast Mafia and the Soupastars to make this event a memorable one for them.

Alumni from batches over the last 50 years visited the campus. It was the time when the entire campus became even more lively as the whole CFTRI family came together to share their experiences and reminisce their memories.



SWACHH BHARAT ABHIYAN event was an appropriate start for the day wherein the current batch students along with the alumni association office bearers and a few alumni stepped forward for a cleanliness drive in the campus. They pledged to keep the beauty of the campus intact by keeping it clean always.



## ON TO THE EVENT

The event started with a welcome speech by Alumni Association President Dr. D Indrani at IFTTC auditorium. The activities of the Alumni Association were highlighted by Dr. N G Iboyaima Singh. Followed by which Patron and M.Sc, Coordinator Dr. R P Singh delivered his remarks. Dr. H B Sowbhagya introduced the chief guest, Shri Dr. D N Kulkarni, President, Jain Irrigation Systems Limited, India, for the occasion. The chief guest addressed the gathering. Alumni from the Silver jubilee batch felicitated their guides and teachers, also the senior most alumni were felicitated in the occasion. Alumni from silver jubilee batch along with all the other alumni, the outgoing 53rd batch and 1st year students were presented with mementos as a token of love. Alumni and outgoing batch gave their views and then presidential remarks was delivered by the Director Dr. KSMS Raghava Rao. The event concluded with the vote of thanks by Treasurer, Dr. V B Sasikala. The event was followed by "GO GREEN DRIVE" wherein the silver jubilee batch members planted tree saplings in the hostel premises and went for cycle riding within the campus.



After a bit of chit chat at high tea it was time to burn some calories and all the alumni came together to play exciting games in the mess lawn. They enjoyed a lot during the game session and nothing could match the kind of happiness that was visualised during the session.



The cultural programmes were organised by the current batch of M.Sc. students for them, which included the welcome dance, skit, lazy/emotionless dance and fusion dance. Alumni along with the students put on their dancing shoes and came on stage to dance their heart out.



Poolside dinner was a perfect end to such a memorable day, sitting together as a family for the dinner and sharing beautiful experiences made the event much more special. It was a great experience for us to see them come back to their roots and we hope to see them soon.

## Cosmo Cuisine

Gazing at the clear night sky, we lie on the makeshift mattresses laid out on the terrace of my grandparents' home, hoping to catch a glimpse of a shooting star. This was years ago, now that I choose to muse on it, there might have been a few moments when I did ponder about the lucky astronauts who get to watch the beauty day in and day out. But never did I think about the food that they eat, out in the space. Not until I chose Food Technology as my Undergrad course.



Space food is a type of food engineered and processed for consumption by astronauts in a zero-gravity environment. Not just as a source of nutrition, food also happens to be deeply intertwined with our emotions. Hence the strategically designed Cosmo-cuisine shoulders an array of responsibilities including providing energy, being safe, wholesome, lightweight, compact, well packaged (with a Bar code and preparation instructions in both English and Russian), fast to serve, require minimal cleaning up (Foods that tend to leave crumbs, like breads are ill-suited for space), and most importantly tasty, with a nostalgic touch to avoid homesickness (or should I say earth-sickness). It must be noted that the food prepared must have a long shelf life, while being easy and safe to store, prepare and consume in the machinery filled weightless environments of manned spacecraft. Needless to say, designing a diet plan that fits the above criteria is a daunting task and hence new methods was, is and will be devised, for continuous improvement of the food being produced. It's highly processed and tweaked a million ways to deal with safety and shelf life.

The initial idea from The Man in Space Committee of the Space Science Board in 1963 was to supply astronauts with a formula diet that would supply all the needed vitamins and nutrients. Caloric requirements of astronauts are determined by the National Research Council formula for basal energy expenditure (BEE). While they need to consume about the same number of calories as they do on Earth, the amount of iron and sodium in their diet is limited. The standard shuttle menu repeats after 7 days. Prior to the mission, they are fed low residual launch-day breakfasts, to reduce the chances that they would defecate in flight.

### MISSION AND FOOD

John Glenn as the 1st American to orbit Earth (Friendship 7, 1962), had to experiment eating in microgravity. Reportedly, he squeezed applesauce and puréed beef from metal tubes down a straw and into his mouth through a port in his helmet. Experts were concerned that weightlessness would impair swallowing, which was eventually proved wrong (thanks to peristalsis!!!).

Astronauts in later Mercury missions (1959–1963) ate bite-sized cubes, freeze-dried powders vacuum-packed in retort pouches.

In Gemini missions (1965–1966), tubes (heavier than the foods they contained) were abandoned. Gelatin coatings helped preventing bite-sized cubes from crumbling. On-board hydrogen-oxygen fuel cells provided a source of water that was used to moisten dehydrated and freeze-dried foods.

Gemini and Apollo foods were engineered by the Whirlpool Corporation (debuted its Space Kitchen in 1961) in conjunction with the U.S. Army Laboratory in Natick, Massachusetts and NASA. After eating, a small tablet was inserted into the package to kill bacterial growth. Capitalizing on the popularity of the space missions, Pillsbury and Tang sold their products in the consumer market.

Larger living areas on the Skylab space station (1973–1974) allowed an on-board refrigerator and freezer. It relied on solar cells (not water-producing fuel cells) for power. So, foods requiring reconstitution were limited to conserve water. Dining table and chairs, fastened to the floor, fitted with foot and thigh restraints, allowed for a more normal eating experience. The trays had magnets and straps to hold eating utensils and scissors. However, the crew still found it to be unappetizing (though better than that of Apollo), partially due to food tasting different in space than on Earth, due to head congestion from weightlessness dulling their senses of taste and smell.



## **TRADITION MEETS STATE OF THE ART**

Chinese astronaut, Yang Liwei,\* ate Kung Pao chicken, Eight Treasures rice, and tea. Italian firms Lavazza and Argotec developed an espresso machine, ISSpresso, that brews coffee, tea, etc., while it serves as a quality-of-life improvement device, it is also an experiment on fluid dynamics in space. The Japan Aerospace Exploration Agency (JAXA) had developed ramen, sushi, etc., in collaboration with Ajinomoto, Meiji Dairies, and Nissin Foods. South Korea's astronaut, Yi So-yeon, ate kimchi. It took three research institutes, several years and over a million dollars to create a version that was suitable for space travel. Russian food is generally, heated through electro resistive (ohmic) methods. It includes nuts, fruits, mashed potatoes, meat, rice, buckwheat etc.,

Carbonated drinks are not favored due to changes caused by microgravity. Without gravity to separate the liquid and gas in the stomach, burping results in a kind of vomiting called "wet burping/ belching". Coca-Cola and Pepsi were first carried on STS-51-F in 1985. Vostok 4-Pines Stout, a parabolic flight experiment validated that the beer recipe with reduced carbonation counteracts the reduced taste, smell and the possibility of wet belches in microgravity.

The usual foods an astronaut has available include:

**Beverages (B)** - Freeze dried mixes (coffee or tea with powdered cream and/or sugar) or flavored drinks in vacuum sealed pouches. **Fresh Foods (FF)**- Fresh fruit, vegetables delivered by resupply missions, that has to be eaten within the first two days of flight to prevent spoilage. **Irradiated (I) Meat**- Beef steak. **Intermediate Moisture (IM)** -Dried fruits. **Natural Form (NF)** - Ready to eat food packed as-is in clear, flexible pouches, like nuts, cookies and granola bars. **Rehydratable (R) Foods** -Dehydrated foods (Soups, cereals, etc.,)-rehydrated in hot water prior to consumption. **Thermostabilized (T)** - Canned or retort processed foods (beef, tomatoes and ham). **Shelf Stable Tortillas** - heat treated tortillas packed in an O<sub>2</sub>-free nitrogen atmosphere. **Condiments** - Liquid salt solution, pepper paste, mayonnaise, ketchup. **Egg crystals** - Yellow sugar like particles when mixed with water gives liquid egg.

**Risk is inevitable:** If the spacecraft cabin becomes depressurized, the astronauts would have to live in their spacesuits and would not be able to eat solid foods. Here comes the Contingency Feeding System, which would allow astronauts to eat liquid foods through a small port in their helmet. In 2014, an unmanned resupply rocket headed for the ISS exploded seconds after liftoff. Onboard were 1,600 pounds of scientific equipment and 1,360 pounds of food. That's a major commitment on money, time and food.

## TARGET MARS

Compared to sucking food through a tube, dining in space has gone a long way. Astronauts order off a menu, one far more extensive than what you'd find in a restaurant. Most of it is developed at the Johnson Space Center's Space Food Systems Laboratory in Houston, about 8 to 9 months before launch.

NASA's Advanced Food Technology Project (AFT) is currently researching ways to ensure an adequate food supply for long-duration space exploration missions where the issue of menu fatigue could escalate to serious problems. There is a need for food systems that could feed astronauts on missions lasting years. This means that NASA's current standard for shelf life, 18 months will no longer cut it. One of the solutions is to allow the crew to cook (of course, using limited energy and shelf stable ingredients). Space agencies haven't yet explored this avenue because: Cooking requires water and energy (two things that are extremely precious in space). It also requires time and astronauts lead very busy lives. Finally, humans in space are currently in microgravity, where cooking isn't really possible. But Mars has about 38% of Earth's gravity, so NASA astronauts can grow vegetables, wheat and rice in "hydroponic growth labs", in future. The major demerit is that it takes time and effort. So, it's a trade-off. Do you want your crew to be super-efficient, just heat something up in a couple of seconds and then continue working, but over the long term suffer from psychological consequences? Or do you give the crew a better lifestyle? For a long-term stay, it's probably going to be a marriage of both. Giving people autonomy is highly motivational. If we want to keep people sane on a three-year trip to Mars, we can't control every single minute of their lives. After all, all they want is comfort food.

### Reference

[https://www.nasa.gov/audience/forstudents/postsecondary/features/Food\\_for\\_Space\\_Flight.html](https://www.nasa.gov/audience/forstudents/postsecondary/features/Food_for_Space_Flight.html)

<https://ideas.ted.com/comfort-food-in-space-the-final-frontier/>



## INTERESTING FACTS!!!



## 1. Mélange Veggie Nacho crisps

Cornitos has unveiled its new product, Mélange Veggie Nacho Crisps. It is made from natural vegetable extracts blended with corn masa and seasoned with Himalayan pink salt and roasted garlic. It is a mix of Beetroot Nachos, Spinach Nachos and White Bean Nachos in a single pack. Nacho Crisps gets the special colour, flavour and health benefits from each vegetable, blended with corn masa. Veggie Nacho Crisps are created by the Mexican process of making stone-ground Masa using non-GMO corn. They are originally wedge-shaped, extra-thin, and gluten-free and cooked in healthy corn oil.

For more information log on to:

<https://www.foodhospitality.in/latest-updates/cornitos-launch-es-melange-veggie-nacho-crisps/>



## 2. ITC unveils three Fabelle Signature Chocolate Creations for Mother's Day

ITC has unveiled Fabelle Signature Chocolate in three creations, viz. Apple Crumble Pie Volcano, Salted Caramel and Lavender Volcano and Madagascar Vanilla Bean and Ruby Volcano. These have been specifically created by the master chocolatiers for Mother's Day. Each of the three creations represents one stage of the maternal bond that the mother shares with her child. The special collection of delectable Fabelle Mother's Day offerings are aesthetically designed.

For more information log on to:

<http://www.fnbnews.com/Snacks-Confectionery/itc-unveils-three-fabelles-signature-chocolate-creations-for-mothers-day>.



## 3. Graham's The Family Dairy launches cottage cheese line

Scotland-based Graham's The Family Dairy has unveiled new cottage cheese featuring a fruit layer. Three flavors are available – strawberry, peach and black cherry – each containing more than 18g of protein and millions of live bacteria. Made with Scottish milk from more than 110 farming partners, each pot consists of a cottage cheese layer on top of the fruity compote. As a tasty, healthy snack, Goodness cottage cheese is high in protein and is great for our gut.

For more information log on to:

<https://www.foodbev.com/news/grahams-the-family-dairy-launches-cottage-cheese-line/>



#### 4. Society Tea brings 'Society Elaichi Adrak Tea'

Society Tea, from the House of Hasmukhrai and Co., has introduced its new product 'Society Elaichi Adrak Tea'. This is a proper blend of taste and nutrition. It provides the perfect infusion of rich color and the strong flavors of elaichi and adrak. The Elaichi is known for its digestive properties and its effect in reducing flatulence, while Adrak is known to relieve cold and flu and reduce stomach cramps.

For more information log on to:

<https://www.restaurantindia.in/news/society-tea-brings-society-elaichi-adrak-tea.n18234>



#### 5. ITC Limited launches Aashirvaad Koora Karam Masala in Telangana and AP

Aashirvaad Spices in Andhra Pradesh and Telangana region has launched Aashirvaad Koora Karam, a multi-purpose masala. The spices used to make the multi-purpose masala are directly from farmers across 170-plus villages to retain the right aroma, pungency and colour. Making Koora Karam is an age-old practice that is prevalent amongst the households in Andhra Pradesh and Telangana to bring out the best tasting mix of spices used in multiple dishes. ITC is providing a product that already contains the mix of traditional spices such as chilli, garlic, curry leaves, cumin, sesame and salt. Aashirvaad Koora Karam masala mix can replace all other individual household spices, ensuring an authentic flavour and taste.

For more information log on to:

<http://www.fnbnews.com/Spices/itc-limited-launches-aashirvaad-koora-karam-masala-in-telangana>.



#### 6. Danisco Vege cultures – Howaru probiotics

DuPont Nutrition and Biosciences (DuPont) has announced DuPont Danisco Vege cultures, a new culture line that contains its premium Howaru probiotics which are specially designed for fermented plant-based products to deliver health benefits. This product offers desired taste and texture profiles in non-dairy applications. New additions are Howaru Dophilus VG, which contains Lactobacillus acidophilus NCFM, and Howaru Bifido VG, which contains Bifidobacterium lactis HN019 – have highly positive results in digestive health and well-being. It is non-dairy, non-animal, non-allergen, non-GMO and is suitable for vegan diets.

For more information log on to:

<http://www.fnbnews.com/International/danisco-vege-cultures-line-delivers-health-benefits-for-fermented-fb-48598>



# FSSAI POLICIES AND REGULATIONS

## 1. FSSAI note on gluten-free food ensures safe food for allergic people

19 June, 2019

FSSAI has released a guidance note on gluten-free foods, aimed at ensuring safe food for people having allergies to food containing gluten. The guidance note stated that the FBOs (food business operators) must comply with the provisions of the gluten-free food standards, wherein only food that contains 20mg gluten per kg or less can be labelled as gluten-free. In case any gluten-free product is manufactured in a plant where gluten-containing products are also manufactured, this shall be declared on the label as, "Processed in a plant where gluten containing products are manufactured".

<http://www.fnbnews.com/Policy-Regulations/fssai-note-on-gluten-free-food-ensures-safe-food-for-allergic-people-48924>



## 2. FSSAI issues guidelines for collection of cooking oil through agencies

14 June, 2019

FSSAI has issued guidelines for the collection of the used cooking oil by biodiesel manufacturers from FBOs through authorized collection agencies. According to the guidelines, the biodiesel manufacturers will be responsible to ensure that the used cooking oil collected by the agencies authorized by them does not go back into the food value chain and is used for the manufacture of biodiesel only, while the country's apex food regulator will maintain a directory of all such collection agencies.

<http://www.fnbnews.com/Policy-Regulations/fssai-issues-guidelines-for-collection-of-cooking-oil-through-agencies-48883>



## 3. FSSAI gearing up for packaging regulations, stated to be effective from July

13 June, 2019

The FSSAI is gearing up for the implementation of new packaging regulations, which shall come into force from July 1, 2019. According to experts, implementation of these regulations would require integrated efforts from all stakeholders, particularly the chemical industry, which forms the base for many of the requirements under the new FSS Packaging Regulations that are slated to replace the 2011 Regulations. The new regulation aims to adopt standards which will regulate different packaging components such as plastics, glass, paper, printing inks, etc. across the packaging supply chain.

<http://www.fnbnews.com/Policy-Regulations/fssai-gearing-up-for-pkg-regulations-slated-to-be-effective-from-july-48864>



# WHAT THE FOOD

## SAY YES TO VEGAN SHRIMP

How do you describe the taste and texture of a prawn? Sort of rubbery, elastic, even like chicken is only better. These unappetising phrases hardly capture what makes it so good and the precise reason why prawns are one of the most consumed seafoods globally.

Prawn (called shrimp in US) is the most popular seafood in the United States, with Americans eating an average of 4.1 pounds per person annually. Shrimp is either farmed or wild, but neither option is good for the environment. Farmed shrimp are kept in pools on the coast, where the tide can refresh the water and carry waste out to sea. Ponds are prepared with heavy doses of chemicals such as urea, superphosphate, and diesel. Then the shrimp receive pesticides, antibiotics (some that are banned in the U.S., but used overseas), piscicides (fish-killing chemicals like chlorine), sodium tripolyphosphate, borax, and caustic soda.

Shrimp farmers have destroyed an estimated 38 percent of the world's mangroves to create shrimp ponds, and the damage is permanent. Not only do the mangroves not return long after production has ended, but the surrounding areas become wastelands. According to a Yale University research paper, shrimp farming has made certain areas of Bangladesh completely uninhabitable for people. The introduction of brackish-water shrimp aquaculture has in turn, caused massive depeasantization (erosion of peasant practices) and ecological crisis throughout the region.

None of those factors are unfortunately, likely to diminish the public's appetite for shrimp, though. As mentioned earlier Americans eat roughly four pounds of it per capita each year., this sounds like a miserably negligible figure until you multiply it by the 2016 U.S. Census Bureau population estimate, which is over 323 million people. To prevail over this problem a biotech start up 'New Wave Foods' is on a mission to mimic the exact texture and taste of a prawn, in a product made entirely out of algae and plant ingredients.



The New Wave team consists of three women with a combined professional background in environmentalism to take on this ambitious task. Dominique Barnes, Michelle Wolf and Jennifer Kaehms, these three developed the prawns which are made completely without animal cells. The recipe blends plant ingredients with red algae, which gives the product its realistic coral hue. While the company can't share the finer details of their technique which is pioneered by the company's materials scientist and co-founder Michelle Wolf. Barnes says it involves pinpointing the

building blocks of the food they're trying to replicate, and searching for replacements in a wide range of algae and plants. "It's really about understanding what creates the textural properties of shrimp, and then looking for molecules that mimic that," she says.

Shrimp muscle fibre is shorter in length with a higher moisture content, so how difficult is to mimic the taste, texture and appearance of shrimp with plants? New wave team said that, they have tested hundreds of shrimp products of the same species and observed flavour and texture can vary enormously. They use an extract from brown algae for texture, and to impart flavour they also use natural flavourings. For protein they use soy, because algae-based protein was mostly green and people don't want that in a shrimp alternative. They had experimented with lots of plant-based proteins but soy had the best colour, flavour and amino acid profile. They also include some undisclosed ingredients to create a plant-based alternative.

The shrimp is nearly identical to the real thing in look and taste, and the health benefits of New Wave Foods substitute far exceeds that of the original. This shrimp substitute has zero cholesterol, is allergen free, and kosher, while retaining the same high protein, low fat content that shrimp is known and loved for. In addition, removal of the necessity of a body of water alleviates any risk of waterborne diseases or harmful chemicals or hormones that are detrimental to human health. New Wave Foods is already selling their product to the catering industry as well as a select few restaurants and it is available in retail in California and Nevada. Google's employee cafeteria has already sampled the product and intends to start serving it as soon as it's available.



This being said, consumer demand and participation is necessary to allow these start-ups to have a long-term environmental impact. Will people be open to the idea of eating 'fake' shrimp? Current seafood production is incredibly problematic both in terms of high levels of mercury and plastic as well as environmental concerns, so people should be open to eating substitute seafoods. However, it is yet to be determined whether the general public will be willing to eat seafood created outside of an animal.

As the demand for seafood grows, we need to create sustainable solutions that don't destroy our ocean's ecosystems. Let us move towards the vegan shrimp in order to protect the environment as well as our own health. So, say yes to vegan shrimp.

#### *Reference:*

1. <https://www.digitaltrends.com/cool-tech/red-algae-shrimp-google-new-wave-foods/>
2. <https://www.newwavefoods.com/>
3. <https://www.thedailymeal.com/healthy-eating/plant-based-shrimp-thing.../>
4. <https://www.foodnavigator-usa.com/>

## National Technology Day:

It was celebrated on 11-05-2019 at IFTTC auditorium premises with the theme of "Science for people and people for science". Shri D A Prasanna chancellor of NIE University was invited as chief guest, CSIR-CFTRI Director Dr.KSMS Raghava Rao, scientists like Dr. Suresh D Sakhare, Mr. H S Sathish were also present and explained the relevance by stating "A fruitful all round development of country is not possible unless there is focus on basic research and it is institute like CFTRI which are in forefront that have to take steps and concentrate on such research", Awards and certificates of excellence in technology transfer were presented for various department and the memorandum of understanding (MoU) was signed with Karnataka health promotion trust for working with regard to malnutrition.



## Fani cyclone relief programme:

To help the people affected by cyclone Fani in Odisha, Andhra Pradesh and West Bengal, CSIR-CFTRI prepared around 1 lakh ready to eat products such as chapati, upma, poha, rusk, high protein biscuits and other bakery products. The effort was led by director Dr.KSMS Raghav Rao along with more than 1000 students and staffs with target of 25 tonnes of food that could be consumed by over 125000 people.

## Holi celebration:

Holi, the festival of colours was celebrated on 23-03-2019 at IFTTC hostel, Holika Dahan was celebrated by lighting of bonfire in the evening of 20th march. On Saturday morning Holi was celebrated and wishes were exchanged with colours, music and dance and continued till the afternoon cheerfully. The vibrancy of colour made everyone joyful, enthusiastic and a day worth rejoicing bringing positivity.



## IFT Trip:

The trip was organized on 25th May 2019 by IFT club for a day for both French Toast Mafia and Soup – A – Stars together. We visited places such as Mekedatu falls, a location along Kaveri river Sangam and Talakadu which has temples and river. It was an enjoyable trip time for both the batches with nature.

### Interaction session by DuPont India:

The session was conducted by DuPont India. Mr. Indranil Chatterjee and Mrs. Karuna, resource persons of the industry presented a seminar on 'Enriching the food with protein and dietary fiber'. This was followed by an interaction about the carrier goals and challenges faced in industry between the M.Sc. Food Technology students and delegates. Dr R P Singh, Co-Ordinator of M.Sc. Food Technology course was also present in the session and made it more helpful to the students seeking opportunity to work in the corporate sector.



### Farewell night- Vigama

The farewell night for French Toast Mafia, outgoing 53rd batch of M.Sc. Food Technology (2017-2019 batch) was organized by Soup-A-Stars on 22nd June 2019. Dr. Sridevi Annapurna Singh, Chief guest and Dr. Nilabh Singh, Mr. Srinivas A, Dr. Shashikala V B graced the occasion. The trend of planting trees in the memory of the outgoing batch was also started. It was an evening filled with both joy and regret, as it marked one of the last occasions, we will celebrate with the FTM. Events such as games, cake cutting, cultural sparks, was enjoyable and memorable.



### Chamundi trip

The legacy of CFTRI culture continued on 23rd June 2019, French Toast Mafia and Soup-A-Stars together visited the Chamundi hills to obtain a shower of the almighty's blessings and enjoyed the sunset and view point in the evening.



## Tropicana



### TROPICANA PRODUCTS AND THE COMMERCIALIZATION OF ORANGE JUICE

Tropicana was founded in 1947 by Anthony Talamo Rossi in Branderton, Florida. Rossi was Italian and immigrated to the United States when he was 21 years old. Rossi's objective of creating this brand was bringing to Florida the type of orange juice he always had tasted in his home town in Italy. Rossi was a guy full of dreams and he wanted to make money to travel to Africa and explore, so he started working in different jobs; for example as a construction worker, as a taxidriver and chauffer, then finally making it out on his own packaging and selling fresh fruit to stores, restaurants and hotels throughout the United States. As the business grew, it became a company called Fruit Industries Inc., so Rossi began producing concentrate orange juice. He called the brand Tropicana. Rossi retired in 1978 and the company was sold to Beatrice Company, then later the company was acquired in 1998 by PepsiCo. Up to day, Tropicana Products are one of the world's largest producers of orange juice.

Tropic-Ana was the first mascot for Tropicana 100% orange juice. Tropic-Ana was illustrated by Jane Beckley Burt during the 1980s, and was based on Chrissie Kesten Pool.

### DIFFERENCES BETWEEN ORIGINAL AND NEW PACKAGING

Tropicana is one of the most famous brand, that sells citrus juice worldwide. But when the company tried to change the package design, it was not as successful as they would have wanted it. The new design was declined and criticized by the majority of the Tropicana's consumers. The publicity and advertising of the new package was such a disaster that the company had to drop it and go back to the old version. Tropicana's change was very surprising because the company was doing well and the consumers already knew the original version. They changed the logo, the slogan, the image, the lid, the typography and for this the client were confused about Tropicana's new image. Marketing, advertising and packaging are very good strategies in a company, but in this case, Tropicana wasn't too successful and that's why the new design was a failure.

"We thought it would be important to take this brand and bring it or evolve it into a more current or modern state." Stated Peter Arnell, director of the creative agency Arnell in his speech explaining the strategy chosen for the Tropicana Products. The original version was horizontal, and followed by the name "Pure Premium", but the new logo was vertical and more modern to now.



As you can see, one of the clearest changes that they made was changing the orange for a transparent glass full of orange juice. Tropicana's new design is an example on how powerful advertising and packaging can be to the clients. While this was not a positive direction for the company, there are other companies that have been successful when they change their logo and design because they attract new and other consumers with the image. As that is the first thing that consumers see before buying a product.



## THE AWESOME EVOLUTION OF TROPICANA

**1947:** Tropicana Products is founded. The young company hand-delivers glass jars of its patented "Orange Milk" to West Florida homes.

**1960:** Considered "Radical" and "Communist" at the time, Tropicana endures through its early years as a juice-maker. The jar is eventually replaced with the tin can.

**1972:** Tropicana introduces its first mascot, the very non-racist Tropic Ana. She would serve, until 1998, as the face of the company, smiling Asian-ly (and toplessly!) while perpetually carrying a cranium-load of oranges.

**1983:** A Tampa bartender invents the "Good Times Juice Cocktail," consisting of Tropicana orange juice, vodka and cocaine. The coke is later removed and the concoction is renamed the "Screwdriver." High schools across the country rejoice.

**1996:** Tropicana rebrands for the 17th time, now adopting the solid carton we know today with its ubiquitous old-timely-candy-cane-straw in-an-orange motif.

**2001:** Always looking forward (and still a little backward) Tropicana's marketing team decides to experiment once again, which was met with consumer disapproval.

**2004:** Accommodating the Hockey Moms, Nascar Dads and Sam's Club Cousins of America, Tropicana launches the Jugg. These three liters of juice would later become known colloquially as the "Fridge Buster" and the "Detergent Mistaker."

2007: Smelling the oncoming recession, Tropicana downgrades the Jugg to the Vase, a sleeker, "faster" economy container. They also shaved 7 ounces of juice from each Vase while maintaining the same price per unit.

2008: Now firmly a part of the PepsiCo brand (under which all name beverages have rebranded), Tropicana unveils it's 18th re-envisioning of itself. The new minimalist container features only juice, reminding consumers that orange juice is, in fact yellow. Just like the original glass jar showed us back in 1947.

2009: Tropicana switched the design on all cartons sold in the United States to a new image created by the Arnell Group. After less than 2 months and a 20% drop in sales, Tropicana switched back to its original design of an orange skewered by a drinking straw.

2010: It reduced the size of its traditional 64 oz carton to 59 oz in the U.S., and maintained the original price. This change represented a 7.8 percent price-per-ounce increase for consumers.

2018: Tropicana reduced the size again of its container from 59 oz to 52 oz.

## NEW TRENDS AND PRODUCTS IN TROPICANA

### **Probiotics are good for your gut!**

New Tropicana Essentials Probiotics is a delicious and convenient way to add more probiotics into your daily routine. Tropicana Essentials Probiotics contains Bifidobacterium lactis HNO19.

**Tropicana Kids** is the drink you wish you had when you were a kid. It's delicious, has 100% of the daily value of vitamin C, and comes in transparent packaging, so you can see the goodness inside. It's sweetened with real juice and USDA certified organic.

**Tropicana Pure Premium Original** is 100% pure orange juice, squeezed from fresh-picked oranges and never from concentrate.

**Tropicana Premium** drinks with no artificial sweeteners or flavors

**Tropgo with Calcium + Vitamin D** is a delicious, convenient way to get more calcium and vitamin D in your diet. Made with real oranges and no artificial sweeteners, each glass of Trop50 brings you the goodness of orange juice with 50% less sugar and calories.

**Twister drink** offers all day refreshment, plus a full day's supply of Vitamin C.



## Tailoring your resume to the Job Posting



Getting your resume noticed by a particular employer can seem to be a daunting task when yours may be one of hundreds of resumes they receive. Not to fear! There are many ways you can improve the chances of your resume making it to the top of the pile (for starters, being neat and organized, using easy-to-read formatting, proofreading and having a strong opening statement or career summary is a must to make the resume more effective). But, the most important thing you can do is to make sure your resume highlights the specific points in the job posting for the position you are seeking (and also the company).

Even though your resume is supposed to be about you, your experience and education, it needs to focus on what's in it for the employer you want to work for. Its true purpose is to present you as the ideal candidate for the position, which means showing you have the skills to meet the goals of the position and proving your excellence by explaining the benefits you've provided to other organizations in your career. There are several ways you can do that.

### Read the Job Posting Thoroughly

Look at the description of the position and its requirements and find the words and phrases that also describe you and your skills and experience. You want to align your resume (and your cover letter) as much as possible with the picture the employer has painted of the ideal job candidate. Using those specific words and phrases in your resume's Career Summary and/or in a section entitled, "Skills", "Core Competencies" or "Areas of Expertise" will help capture the employer's attention, but also ensure that your resume is picked up by their applicant tracking system.

### Do Your Research

It's a well-known rule of thumb that you should research a company before going to a job interview, but your research should be conducted before you even send them your resume. By going to their website, checking out their social media pages and reading articles about them, you can get a greater sense of the company (and whether they are actually a fit for you). By writing/editing your resume with a complete understanding of the company and what their vision and values are, you will show the employer that you are a fit for them.

### Focus on Your Career Summary

At the very top of your resume, you should have a three to five sentence description or overview of what you offer the employer. This "Career Summary" (or you can call it "Professional Summary" or "Professional Overview") should be customized for every position you apply to and describe your experience and skills, preferably using words and phrases used in the job posting. This is where you really want to focus on what you bring to the table with respect to the position's requirements. Your Career Summary should also provide the employer with highlights of what will be provided in greater detail in the rest of your resume (in the "Skills" and "Experience" sections).

## Quantify Your Performance Information

If your job experience has included accomplishments that are relevant to the position, such as increasing sales leads, improving productivity, saving time by creating a new process, solving problems, or exceeding sales quotas, you want to prominently include that information in your resume's Career Summary or Skills sections. There is a tendency for job seekers to focus on skills and what they can DO rather than what they have DONE. Employers want to hear about your accomplishments and especially those involving numbers and percentages, such as "exceeded sales quota by 20%" or "attracted 10 new customers in one month." In the absence of actual numbers, try providing a quick explanation of what you specifically did to, for example, solve a problem or create efficiency in a particular area. If an employer sees that you have delivered benefits to your past employers, they'll believe that you will do the same for them.



## Demonstrate Rather Than Describe Your Skills

You want to avoid using buzz words and clichéd terms such as "team player," "people person" and "fast learner" to describe your skills. These terms are overused and employers tend to overlook them for that reason. To get their attention, try to demonstrate that you have these skills by providing actual examples or cases. You can also demonstrate certain skills such as being organized or being a good communicator by how your resume is organized and conveys your skills and experience. Again, you want to focus on the skills that are most relevant to the position. Steer away from emphasizing skills that are too basic and more relevant to positions that are more entry-level than the one you're pursuing.

## Be Confident Without Being Arrogant

There's a fine line between being confident and being boastful. Showcase your skills and talents but avoid engaging in self-promotion. More importantly, be careful about over-exaggerating. Show pride in your accomplishments but do it with humility. To conduct an effective job search, you really need to tailor your resume (and your cover letter) to each position you pursue, providing the employer with a picture of you succeeding in that position. Once an employer sees that you have what it takes to be the ideal candidate, that pushes you a step closer to getting the job.

## PLACEMENTS



**Tejas N**

# ALUMN COLUMN



Anu Kampurath  
2004-2006  
Senior Food Scientist  
Tate & Lyle, Chicago, USA

1) What is your batch name? Is there any interesting story leading to your identity?

"Gaanwalas"... We wanted to keep it simple, unique & desi...

2) Intros are the gateway to the CFTRI family. What were the most cherishing memories you had during those days?

Our senior batch had very talented singers, their songs were unforgettable... One of my juniors proposed me during an intro session, that was so much of fun 😊

The steps in front of the mess were our favorite spot and also the garden & benches in front of the Cheluvamba mansion...

4) CFTRI has a rich legacy in celebrating festivals with all its pace. Which was the most enjoyed Celebration/ Festival in CFTRI?

HOLI! HOLI! HOLI!... Armed with packets of colors, chasing and splattering ... It was an insane madness we all enjoyed...

5) Strong Junior-senior relationship is a unique gem of CFTRI. Which was your heart touching moment with your official junior and senior?

I had a very sweet junior who took care of me when I was sick, got food to room and forced me to eat...

6) This is the place to start many new things which we have never done. What are the changes CFTRI has made in you?

Dip your heads... beat your legs... Those words still echo ... I learnt swimming from there. Then I learned to speak Hindi

7) How did you execute your placement preparations and what were the valuable experiences you gathered?

Department played a major role in helping us... It was a little nerve-racking the first few times... But it built the confidence... Above all, the most valuable learning was telling myself "Relax", it's just an interview. Getting a job would be fantastic, but a rejection shouldn't define your entire career.

8) Hostels are the core zones of CFTRI life. In which block

did you stay in the hostel and does it possess any crazy story?

B block, the best block ... I can write essays about our crazy stories... But shhhhhhh?

9) Friendship is immortal in CFTRI. Remembering any late night roamings and movie plan?

Walks after dinner...Chamundi trips... Gossips in the mess... Combined studies... our little fights... holding on to each other, no matter what... Vasu & myself finishing the practicals superfast to rush for the movies...

We all take different paths in life, but no matter where we go, we take a little of each other everywhere - This quote explains it all.

10) Birthday celebrations exhibits the creativity of each Birthday partner. How were the birthday celebrations and who was the best Maggie maker in your batch?

When clock strikes 12 we will gather in front of the blocks... The birthday boy or girl had to do something... If it's boys block, they pour water from the top... Lol, we used to stand far behind not to get wet from those midnight showers... Our PhD seniors used to scold, warn & complain for all the late night hungamas, but nothing stopped us  
The best Maggie maker award goes to Neena, she had all the tips and tricks to make it more yummy...

11) CFTRI gifts a lot of memories and experiences. What do you miss most about CFTRI?

Friends, seniors, juniors, teachers, hostel, mess, walks, gossips, monthly tests ( not really )Manchurians, noodles, late night railway station teas, movies, Chamundi hills, freedom to roam around, beauty of CFTRI, its seasons, foggy mornings, rainy evenings...  
I miss everything about CFTRI.

12) As an alumni, kindly share us a piece of advice...

CFTRI is an emotion, a feeling, a pride... Two years goes in by the blink of an eye so live in the moment, enjoy your CFTRI days and create more & more memories...

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Нот роф  
Голфрули  
Сопов суфл  
Башкити Бис  
Еџв Кош  
Милк Соокис  
Кисер Тосси  
Оатис Биски  
Бром Аролс  
Уиллс



*Photography*



# Vigama





# Vigama



*"There are no goodbyes for us.  
Wherever you are, you will always be  
in our heart."*



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